

Regional Income Differences in Borderlands: A Convergence Analysis

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Abstract - We intend to answer questions like if geography influences the pattern of inequality, that is, if the standard of living varies from region to region, with special attention to the borders, and if it reveals the presence of spatial correlation. The aim of the paper is to study the regional income differences among the NUTs 3 regions of Portugal and Spain in the borderland of these two countries. After a brief introduction we evaluate the inequalities among borderland regions using information about per capita wages. Considering the neighbourhood relationships between the NUTs 3 regions located in the Portugal-Spain border it is possible to conclude that wages are spatially autocorrelated.

Keywords - *Borders; borderlands; income distribution; spatial correlation; Spain; Portugal.*

1. Introduction

Regional imbalances represent an intrinsic characteristic of the European economy. In fact, as stated in Mateus et al. (2000), the structural evolution of the European economy has shown a real convergence between countries and divergence between regions, so the economic and social cohesion, namely the approach of the various territories in terms of standard of living is assumed to a primary objective of economic policy. As such, concerns about inequality in income distribution have gained importance, encouraging the various studies that address specially inequality among individuals within each country [see the studies of Rodrigues (1994, 1999, 2008) for Portugal and, for instance, García & Molina (2001), Goerlich & Mas (2001) for Spain].

The aim of this paper is to study the regional income differences among the NUTs 3 regions of Portugal and Spain in the borderland of these two countries. Following Guerreiro (2012), our research aims to address the problem of inequality in income distribution from a different perspective and we want

to answer the following questions:

- Does geography influence the pattern of inequality, especially in borderland?
- Can we observe spatial correlation in regional per capita wages, especially in the borderland?

To meet the objectives set out, we evaluate the inequalities and spatial correlation among borderland regions using information about per capita wages.

After this introduction, in section 2 we present the methodological framework and the results about regional income differences in the Portugal-Spain border. Finally, we conclude with a synthesis of results and possible future developments in the context of this work.

2. Regional income differences in the Portugal-Spain border

2.1 Methodology

Given the importance that spatial phenomena such as spillover effects, location and distance assume in regional science, it is clear that spatial dependence is a phenomenon that plays an important role in this science. Consequently, if the values observed by some variable do reflect some spatial dimension, as the result of some of those phenomena, which may be theoretically explained or simply data driven, the use of statistical techniques that take that dimension into consideration is obviously desirable (see Anselin 1988 as (one of) the first comprehensive textbooks on these matters and/or Arbia 2006 for a recent textbook contribution).

The application of spatial statistics techniques can thus be justifiable when it exists a theoretical model supporting the existence of spatial dependence, and/or the data shows evidence of spatial autocorrelation after being detected by suitable tests.